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2014

# Game-Based Training Research for Navy EW

McDowell, Perry

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# Game-Based Training Research for Navy EW

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 [www.movesinstitute.org/research-project/game-based-training-research/](http://www.movesinstitute.org/research-project/game-based-training-research/)

## Project Abstract

The goal of this research is to determine experimentally the best methods of training naval personnel in current and future naval surface warfare principles, practices, and tactics of electronic warfare (EW) and anti-ship cruise missile defense (ACMD), including both hard-kill (kinetic) and soft-kill (electronic warfare) in order to produce the most tactically proficient operators at the lowest cost. We are helping design and evaluate modifications to Strike Group Defender (SGD), a new game built for training surface personnel involved in ACMD, such as tactical action officers, EW operators, and other combat information center personnel.

We are initially considering investigating the performance of several potential instructional design features, including:

- Adaptive Training, including using affective Sensors (EEG, galvanic skin response, etc)
- Personalization of Training Scenarios

Evaluation of Periodicity for Refresher Training

- Intelligent Tutoring Systems
- Effect of Realism upon Training Efficacy

This is just a partial list of some of the areas we are investigating, and will consider others. Therefore, any MOVES students who are interested in researching another area of game-based training using SGD should see Perry McDowell. More information on SGD is available in the attached presentation (Strike Group Defender NPS Brief 2014.pdf) and on more information on MOVES' research areas of this topic is available in the attached document (movesResearchSGD.pdf).

## Sponsor

PMR-51

## Principal Investigator(s)

Perry McDowell

## Point of Contact

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We are just starting a new research project in April 2014 for PMR-51, the Navy's Low Observable/Counter Low Observable Technology, Policy and Advanced project office at the Office of Naval Research.

[Strike Group Defender NPS Brief 2014](#)

[movesResearchSGD](#)

*Period of Performance:* Apr 2014 to Sep 2015

*Tags:* [Anti-ship Cruise Missile Defense](#), [Electronic Warfare](#), [Game-Based Training](#), [Human Factors and Training](#),

Thesis Topic, US Navy

*Focus Area:* Human Systems and Training, Visual Simulation and Game-based Technology